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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,662

03/18/2004

Atsushi Suzuki

04182/LH

2106

1933

7590

02/24/2006

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EXAMINER

MARTINEZ, CARLOS A

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/805,662	Applicant(s) SUZUKI ET AL.	
	Examiner Carlos A. Martinez	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/14/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 119(e), a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

If the instant application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition

must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 72 (pg. 16, line 1), 73 (pg. 16, line 5), and 13 (pg. 12, line 13; not shown in Fig. 1 or Fig. 2 as stated in the paragraph from lines 7-14). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: L (Fig. 1).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly

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labeled as “Annotated Sheets” and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

4. The disclosure is objected to because of the following informalities: “An objects” (pg. 6, line 21) [suggestion: change be made to “The object” or “An object”], “source group,” (pg. 8, line 14) [note: comma not needed], “AS” (pg. 8, line 17) [note: typographical error; change to “As”], “see Fig. 5 (b)” (pg. 19, line 10 and line 12) [suggestion: change be made to “see Fig. 6 (b)”], and “Fig. 5” (pg. 29, line 15) [suggestion: for clarity and to avoid confusion, change is recommended to “see Fig. 5 (a) and Fig. 5 (b)”]. Also, objection is made because “60”, “31”, “32”, and “33” have all been used to designate the HDC circuit (refer to lines 17 and 21 of pg. 15 and lines 2 and 6 of pg. 16).

Appropriate correction is required.

5. The use of the trademark [SELFOC] has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US6226026B1) in view of Hattori (US6031558) and Yoshida (US6084625).

- Suzuki discloses an image exposing apparatus for exposing an image onto a photosensitive/light-sensitive material (refer to lines 1 and 2 of abstract) with an array light source having a plurality of rows of light emitting devices and having a plurality of light-emitting devices arranged in a form of a line (refer to Fig. 23 and lines 13-23 of column 1), at least one of the adjoining two rows of the plurality of rows of light-emitting devices being shifted in the longitudinal direction to form a zigzag arrangement of the light emitting devices (refer to Fig. 23 and lines 23-26), and a light converging device for converging the light emitted from the array light sources onto a photosensitive/light-sensitive material (refer to element 25 of Fig. 1 and lines 9-18 of column 3).
- However, Suzuki does not specifically mention a silver halide photosensitive material or an interval between each of the plurality of rows of light-emitting device not being larger than 500 μm .
- Hattori teaches a silver halide photosensitive material for use by an image exposing apparatus (refer to element 2 of Fig. 1 and lines 1-11 of column 1).

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- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify the printing apparatus of Suzuki with a silver halide photosensitive material for use by an image exposing apparatus, as taught by Hattori, for the purpose of utilizing a common photosensitive material.
- Further, Yoshida teaches an array light source for emitting a light image having a plurality of rows of light with the interval between each of the plurality of rows of light-emitting device not being larger than 500 μm (refer to Fig. 5 and lines 34-62 of column 8).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify the printing apparatus of Suzuki, as modified by Hattori, with an interval between each of the plurality of rows of light-emitting device not being larger than 500 μm , as taught by Yoshida, for the purpose of improved image quality.

Further, with respect to claim 2, Suzuki teaches a plurality of the array light sources with a light mixing device for forming and emitting a mixed light image in a line to the light converging device (refer to lines 9-24 of column 3).

With respect to claims 3 and 4, Suzuki teaches a light converging device that is a SELFOC lens array (refer to lines 8-12 of column 13).

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With respect to claims 5, 6, and 7, it would have been obvious to one having skill in the art at the time the invention was made to modify the apparatus of Suzuki with Hattori and Yoshida with a writing density of the array light sources being not less than 210 dpi, as taught by Hattori (refer to lines 45-48 of column 4), for the purpose of image quality.

With respect to claims 8, 9, and 10, it would have been obvious to one having skill in the art at the time the invention was made to modify the apparatus of Suzuki with Hattori and Yoshida with a writing density of the array light sources being not greater than 440 dpi, as taught by Hattori (refer to lines 45-48 of column 4), for the purpose of image quality.

Pertinent Art References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Appropriate prior art, which is nearest to the subject matter defined in the claims, is listed in the Notice of References Cited. These prior art references, such as Mushiaki (US6249502), Yokoyama (US6547400), Hart (US4888603), Hattori (US6072596), Doi (US4907034), Kawabe (US5812176), Teshigawara (US5237347), Deguchi (US6147697), Charnitski (US6469728), Doi (US5712674), Hashizume (USRE38740), Masubuchi (US20020044194), Bogart (US6452696), Boqart (US6917447), Rees (US5568320), Lea (US5543830), "Compact Color Hard Copy System Using Vacuum Fluorescent Print Head and Instant Color Film" (*1st IS&T/SID Color Imaging Conference*, Scottsdale, Arizona; 1993; p. 219-221; ISBN / ISSN: 0-89208-174-0), and "Compact Color Hard Copy System Using Vacuum Fluorescent Print Head" (*IS&T's 50th Annual Conference: A Celebration of All*

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Imaging, Cambridge, Massachusetts; May 1997; p. 248-250; ISBN / ISSN: 0-89208-199-6) are included because they pertain to image exposing or subject matter/elements pertinent to image exposing similar to those defined in the claims of the applicant.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos A. Martinez whose telephone number is (571) 272-8349. The examiner can normally be reached on 8:30 am - 5:00 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAM
02/17/2006



HAI PHAM
PRIMARY EXAMINER